Sl. No.	Items grouped under sub-Heads and Sub-Works of the Estimate Description	Unit
1	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN ALL KINDS OF SOIL MIXED WITH BOULDERS of 30 cms size, etc. for pipes of all dia of Depth of 0 to 2M	Cum
	b) Pipes of all dia for depth 2.0 to 4.0M in all types of Soils	Cum
2	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger, lighting, shoring, strutting, dewatering, etc. IN DISINTEGRATED ROCK, SOFT ROCK, SOFT SHALE AND MEDIUM HARD ROCK COMPRISING OF LIME STONE, SAND STONE, HARD SHALE SCHIEST, FISSURED ROCK without resorting to blast ect. For pipes of all dia **a) For depth upto 2.0m** Note : If any shoring and Strutting will be paid separately	Cum
	b) For depth upto 2.0m to 4.0 m Note : If any shoring and Strutting will be paid separately (BWSSB SR 2017-18 No 2.1 Code : A055B) Page 51 Considering 15% of Earth work Quantity	Cum
3	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger, lighting, shoring, strutting, dewatering, etc. IN HARD ROCK BY CHISTELLING TO PROPER SLOPE etc. **a) Pipes of II dia For depth upto 2.0m** Note : If any shoring and Strutting will be paid separately (BWSSB SR 2017-18 No 2.1 Code : A068A) Page 52 Considering 10% of Earth work Quantity	Cum
	b) For depth upto 2.0m to 4.0 m Note : If any shoring and Strutting will be paid separately (BWSSB SR 2017-18 No 2.1 Code : A068A) Page 52 Considering 10% of Earth work Quantity	Cum
4	REFILLING OF EARTH around pipelines, in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering all lead and lift including cost of all labour including consolidation by mechanical means approved by the Engineer in charge, when earth is at suitable moisture content with desired field density upto 95% maximum dry density (modified heavy proctor test) for restoration of roads without settlement including HOM of machineries, complete. (The contractor shall take care while consolidating the earth, so that, pipes laid are not damaged due to mechanical compaction and shall restore the damaged pipes at his own cost, in case of damage) etc. with:Approved earth available nearby, lead upto 100 M and lift upto 1.5 M. Note: In exceptional cases, earth may be obtained from borrow pit with extra lead, duly obtaining approval from the Chief Engineer.(BWSSB SR 2017-18 Page No56.Sl.no.14.1 Code:A095A) Page 56	Cum
5	Cutting road surfaces for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the classifications for: Macadam Road (BWSSB SR 2017-18 Page No 16.2 Cade : A105A) Page No 56	Cum
6	KSRB-4-1.7 Providing and laying in position plain cement concrete of mix 1:3:6 with cement OPC @220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum and fine aggregates @0.56cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No KBS 4.1,4.2	Cum
7	Providing and installing sheet piling for both sides of the trenches for following depths with mild steel sheets of not less than 6.5 mm thick, stronger knife edge, recessed spreader sockets, 3 inch single or double wall shields, to be designed by the contractor to withstand all types of soils, maximum depth as per the approved design drawings, including labour charges for installing and removing the sheet piling at various reaches of sewer line constructions, including loading, unloading, transporting to the suitable location etc. complete with all lead and lifts. (Measurement shall be taken for one side only even though it is provided for both sides)	Sqm